Serial No.: 10/605,340

Confirmation No.: 2339

Applicant: PREIJERT, Stefan et al.

Atty. Ref.: 00173.0038.PCUS00

AMENDMENTS TO THE CLAIMS:

Please cancel claims 1-17 without prejudice and please add the following new claims:

18. (New) A method for producing a vehicle axle comprising:

directing a first blank (1) through a furnace (2) and heating the blank (1) to a working

temperature;

directing the first blank (1) between a pair of rollers (3, 4) having profiled surfaces

thereby performing the first blank (1) into an intermediate product having a predetermined

profile along a longitudinal extent thereof;

feeding the first blank (1) to a forging press having a number of cooperating die pads, and

working the first blank (1) to form a substantially finished product having a cross section

substantially in the form of a hat profile of predetermined height, width and material thickness

along a length thereof;

placing in connection with the hat profiled first blank (1), a second blank (14) having

essentially the same profile as the hat profile of the first blank (1) in the dividing plane of the

cooperating die pads; and

joining the first (1) and the second blank (14) together, at least respective edges thereof,

to form a composite vehicle axle (18).

19. (New) The method as recited in claim 18, at least the first blank is forged vertically with

respect to the principal plane in which the composite vehicle axle (18) is intended to be used.

20. (New) The method as recited in claim 18, the forging operation comprises a first step in

which a pair of first cooperating die pads form the material in the first blank such that it acquires

a predetermined, varying height in a vertical plane along a longitudinal extent thereof and the

first blank further acquires a basic principal shape in the principal plane in which the composite

vehicle axle (18) is intended to be used.

2

Serial No.: 10/605,340

Confirmation No.: 2339

Applicant: PREIJERT, Stefan *et al.* Atty. Ref.: 00173.0038.PCUS00

21. (New) The method as recited in claim 20, wherein the forging operation further comprises an

additional step in which a pair of second cooperating die pads form the material in the first blank

to a predetermined, varying thickness along a side surface, bottom surface and upper edge surface

of the profile along a longitudinal extent thereof.

22. (New) The method as recited in claim 21, wherein the additional step of the forging operation

is repeated at least one time in successive die pads until the first blank has acquired a final shape.

23. (New) The method as recited in claim 18, wherein the second blank is preformed in a

separate forging operation to have substantially the same profile as the hat profile of the first

blank in a dividing plane of the die pads.

24. (New) The method as recited in claim 18, wherein the first and the second blanks are formed

in a joint forging operation in which the second blank is formed to the same profile as the hat

profile of the first blank in a dividing plane of the die pads.

25. (New) The method as recited in claim 18, wherein the first and the second blanks are heated

in a pair of separate induction furnaces and then placed between a pair of cooperating die pads in

a press and joined together by forge welding.

26. (New) The method as recited in claim 18, wherein the first and the second blank are

simultaneously heated using heating means introduced between the first and second blank, which

blanks are held between a pair of cooperating die pads in a press and the first and second blank

are joined together by forge welding.

27. (New) The method as recited in claim 26, wherein the heating is effected by means of one of

an induction elements, an induction furnace, and a gas flame.

3

Serial No.: 10/605,340

Confirmation No.: 2339

Applicant: PREIJERT, Stefan et al.

Atty. Ref.: 00173.0038.PCUS00

28. (New) The method as recited in claim 18, further comprising:

cutting flashes along the joined edges of the profile in the same press operation as for

joining together the first and second blank, the profile acquiring a predetermined varying width

along a longitudinal extent thereof.

29. (New) The method as recited in claim 18, wherein the vehicle axle comprises a first section

having a cross section substantially taking the form of a hat profile of a predetermined, varying

width, height and material thickness along a length thereof and a second section having an

essentially constant material thickness and being joined together with the first section along side

surfaces of the hat profile.

30. (New) The method as recited in claim 29, wherein the vehicle axle is constructed from a

microalloyed steel.

31. (New) The method as recited in claim 29, wherein the vehicle axle constitutes a front axle

beam.

32. (New) The method as recited in claim 31, wherein a maximum material thickness of the front

axle beam is obtained in connection with fastening points and regions which are to be subjected

to external forces and moments.

33. (New) The method as recited in claim 32, wherein the cross section of the front axle beam

has essentially the same outer contours in both the vertical and horizontal planes as a

conventionally forged, solid beam.

4